

the white tip to the tail and the size, the Ardennes variety being a much larger and stronger animal. Nilsson describes a variety very like the *Vulpes melanogaster* as inhabiting Scandinavia.

10. Notes on the Friendship existing between the Malacopterygian Fish *Premnas biaculeatus* and the *Actinia crassicornis*. By Lieut. C. C. DE CRESPIGNY*.

The Anemone here spoken of is found at Labuan in various habitats—sometimes domiciled in rows along the horizontal fissures of sandstone rocks (the positions being chosen so that at low water they may be just awash), in other cases surrounding and covering a mass of exposed dead madreporae. It is also found attached to rocks or dead coral some inches under the surface of the sand, and from this vantage ground protruding or withdrawing its tentacula at pleasure, so that when they are withdrawn the animal is no longer visible. On a calm evening, when the tide is out, one may observe with advantage the sympathy which appears to exist between this animal and the little fish called *Premnas biaculeatus*. The *Actinia* is in a state of quiescence, allowing its tentacula to float and move about freely in obedience to the impulse of each ripple of the water, they being now supple, pointed at the extremities, and gravitating downwards. A *Premnas* now passes over the Anemone, and immediately the tentacula become erect and diverge as if galvanized, while their extremities become clubby and phosphorescent.

The fish hovers over it, gently rubbing the tentacula with his pectoral fins, and so will remain for some time. The hand-net is passed quietly down under the Anemone, and the alarmed fish, instead of swimming away, dives into the body of its friend, the tentacles closing over it and thus burying it in a living tomb. The hand of the captor now disturbs the fish in its hidden retreat, and upon its again rushing forth from its hiding-place the net is drawn to the surface of the water and the little fellow captured. The natural colour of this fish is pale red, having three perpendicular white stripes on the body. Upon its attaining full growth, however, when it is from four to five inches long, it becomes almost black, and the stripes are very nearly obliterated. In captivity I have known an Anemone live in perfect harmony with a *Premnas* for nearly a year. One morning the fish was found dead outside its tub, from which it had leapt in the night; the Anemone sickened, became elongated and flaccid, and died in a few days.

On the other hand, I have known a fish live in a tub for a long time without the society of its complementary Anemone.

It may be that the fish spawns upon the Anemone, or that by continually rubbing its fins against the extremities of the tentacles it rids itself and its friend of disagreeable parasites, or that it causes a continuous flow of water across the body of its friend, in which stream are conveyed the animalcula on which it lives.

* Communicated by E. Higgins, Esq., F.Z.S.

These points may be determined by future observations. It will be noticed that the extremities of the fins and tail of the *Premnas* are attenuated to what appears to be the utmost degree consistent with cohesion of their molecules.

April 22, 1869.

The Viscount Walden, President, in the Chair.

Mr. G. Dawson Rowley, F.Z.S., exhibited some specimens of British-killed Pipits, and made the following observations upon them:—

I have the pleasure to exhibit a series of Water-Pipits (*Anthus aquaticus*) and Rock-Pipits (*Anthus obscurus*), all shot or taken near Brighton, in spring and autumn plumage, male and female respectively, showing the distinction between the two species in the several states. Only two or three of the former have ever been, I think, noticed in print as found in the British isles, and considerable confusion has existed in collections respecting them. I have at times observed each one doing duty for the other. *A. aquaticus* is not very common; but it visits the south coast regularly in the spring, moves on to breed, and again stops with us a few weeks on its return in autumn. In spring it has a blue tinge on the back, with a vinous one on the chest, underparts greenish; in the autumn dress these are lost, and the underparts turn pure white. The outer tail-feather also changes from buff to white. Males differ little from females.

A communication was read from Mr. Thomas Graham Ponton, F.Z.S., containing a criticism of the arrangement of the shells of the genus *Mangelia* adopted by Reeve in his 'Monograph,' in which it was pointed out that the seventy species of this group given in the 'Conchologia Iconica' ought to be distributed amongst the genera *Defrancia*, *Cythara*, and *Mangelia*. Mr. Ponton gave a list of the species which he considered referable to each of these three genera, and proposed to assign one to *Defrancia*, fifty-three to *Cythara*, and sixteen to *Mangelia*.

The following papers were read:—

1. On the Muscular Sheath of the Cardiac End of the Œsophagus of the Aye-Aye (*Chiromys madagascariensis*).
By GEORGE GULLIVER, F.R.S.

Among the many inexplicable structural arrangements of animal organs is that of the comparative distribution of the striped muscular fibre to the same part in different orders; and the obscurity is not